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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SHERMAN, STEPHEN G

ART UNIT

PAPER NUMBER

2629

NOTIFICATION DATE

DELIVERY MODE

05/07/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Patent-ch@btlaw.com

Office Action Summary	Application No. 10/719,881	Applicant(s) MATTHIJS ET AL.	
	Examiner STEPHEN G. SHERMAN	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 24 March 2009 has been entered. Claims 16-32 are pending.

Response to Arguments

2. Applicant's arguments filed 24 March 2009 have been fully considered but they are not persuasive.

In response to Applicant's arguments on pages 6-10 of the response against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Specifically, the applicant has argued that Aida does not teach the "in a copy of said image, adapting..." feature of the claim, while no Figure of Ohara showing the

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representation of the image and the indication of the image defects in a single combined image, And then argues that Ohara does not disclose a matrix display. The examiner did not use Aida alone to teach the entire "in a copy of said image, adapting..." feature, because as admitted in the rejection Aida does not teach image misinterpretation, while Ohara does teach image interpretation but doesn't disclose of using it on a matrix display, while Aida discloses a matrix display with defects. Thus, the combination of Aida and Ohara teaches the claimed limitations. Further, the claims don't say anything about "the representation of the image and the indication of the image defects in a single combined image" and thus the references don't need to teach this feature since it is not claimed. Further due to the "or" language of the claim, neither of the references need to teach feature "e" of the claims anyways as argued by the Applicant.

The Applicant further argues on page 10 that the combination does not provide the solution of claim 16 because Ohara does not teach the use of a single image, however, besides the fact that the single image feature is not claimed, the solution of image misinterpretation is still achieved because the user still knows where the defects are located and thus can still avoid misinterpreting the image. Thus the rejection of the claims are proper and maintained.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 16-19, 22-28 and 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aida (JP 59-126967) in view of Ohara et al. (US 6,529,618).

Regarding claim 16, Aida discloses a method comprising:

obtaining information on the presence and the location of defective pixels in the display (Figure 3 and page 5, lines 19-22 explain that measurements are taken of the pixels, and page 5, lines 22 to page 6, line 5 explain that the measurements are compared to determine if there is a defect or not and then the results are stored in a storage section 4. The storage section also receives the coordinate information from

the x-sequence control 8 and the y-sequence control 9, i.e. location of the pixel.), and on the basis of this information,

in a copy of an image adapting the image content of the pixels corresponding to said defective pixels or the pixels corresponding to the cells in the neighborhood of the defective cells so, as to emphasize or warn for the presence of pixels corresponding to said defective cells (Figure 3 shows display section 14. Page 7, lines 3-5 explain that the judgment results are displayed on the display section 14 at the position that corresponds to the pixel measured at that time. This means that in a copy of an image of the LED matrix display the location of the defective pixels will be made so as to warn and indicate these defects to a user.).

Aida fail to teach that the method is for avoiding misinterpretation of an image displayed on a matrix display due to defective cells in the matrix display, where on the basis of the information, modulating the operation of said matrix display so as to emphasize or warn for the presence of said defective cells on the actual display of said image or in a copy of said image, adapting the image content of the pixels corresponding to said defective cells or of the pixels corresponding to the cells in the neighborhood of the defective cells so as to emphasize or warn for the presence of pixels corresponding to said defective cells, thereby avoiding misinterpretation of the image displayed on the matrix display device due to said defective cells.

Ohara et al. disclose a method for avoiding misinterpretation of an image displayed on a display due to defects, the method comprising:

obtaining information on the presence and the location of the defects (Column 17, lines 33-40 and 57-64 explain that the location of the defects are obtained), and on the basis of this information,

modulating the operation of said display so as to emphasize or warn for the presence of said defects on the actual display of said image (Figure 13 and 14 and column 19, lines 12-19 explain that the matrix display operation is changed to mark the display, i.e. emphasize/warn, for the presence of the defects.), or

in a copy of said image of pixels corresponding to said defective cells, adapting the image content of the defective pixels or of pixels in the neighborhood of the defective cells so as to emphasize or warn for the presence of said defective cells,

thereby avoiding misinterpretation of the image displayed on a display device due to said defects (Figures 14A and 14B and column 20, line 58 to column 21, line 26 explain that the image with the defect is displayed at the same time as the corrected image such that misinterpretation of the image will be avoided.).

Therefore, it would have been obvious to “one of ordinary skill” in the art at the time the invention was made to use the image misinterpretation method taught by Ohara et al. on a matrix display panel having defective pixels as taught by Aida in order to allow for medical doctors to read the photograph grasping the positions of the defective cells such that the misinterpretation of the medical image can be avoided (Ohara et al., column 21, lines 21-26).

Regarding claim 17, Aida and Ohara et al. disclose a method according to claim 16.

Ohara et al. also disclose wherein the information is obtained from data previously stored in a memory device (Figure 1 shows the defect information memory section 26).

Regarding claim 18, Aida and Ohara et al. disclose a method according to claim 17.

Ohara et al. also disclose the method comprising, while displaying the image on the display device, supplying information on defects to a user, based on the stored data (Figures 14A and 14B show that information about the defective cells is displayed while the image is displayed on the matrix display device.).

Regarding claim 19, Aida and Ohara et al. disclose a method according to claim 16.

Ohara et al. also disclose wherein, emphasizing or warning for the presence of at least one defect comprises visually marking the at least one defect on said matrix display device (Figures 13, 14A and 14B each show that the defective cells are visually marked to emphasize/warn for their presence.).

Regarding claim 22, Aida and Ohara et al. disclose a method according to claim 16.

Aida also discloses wherein the information on the presence of defective pixels is obtained by means of an image capturing device (Figure 2 shows optical sensor Op.).

Regarding claim 23, please refer to the rejection of claim 16, and furthermore Ohara et al. also disclose of a method for avoiding misinterpretation of a copy of an image displayed on a display device due to defects (Figure 13, 14A and 14B) comprising adapting in said copy of said image, the image content of the pixels corresponding to said defects so as to emphasize or warn for the presence of pixels corresponding to said defects (Figure 13, 14A and 14B all show the copy of the image taken that is displayed on the display device with the defects emphasized/warned for by using visual marking so as to avoid misinterpretation of the copy of the image taken.).

Furthermore, as also discussed in the rejection of claim 16, Aida also discloses of adapting the image content of the defective cells or of cells in the neighborhood of the defective cells so as to emphasize or warn for the presence in the copy of said image of pixels corresponding to said defective cells (Figure 3 shows display section 14. Page 7, lines 3-5 explain that the judgment results are displayed on the display section 14 at the position that corresponds to the pixel measured at that time. This means that in a copy of an image of the LED matrix display the location of the defective pixels will be made so as to warn the user about the defects.).

Regarding claim 24, Aida and Ohara et al. disclose the method according to claim 23.

Aida also discloses wherein, the copy is a hard copy or an electronic copy (Figure 3 shows that the “copy” is displayed on the display section 14, meaning that it is an electronic copy.).

Regarding claim 25, this claim is rejected under the same rationale as claim 16.

Regarding claim 26, this claim is rejected under the same rationale as claim 17.

Regarding claim 27, this claim is rejected under the same rationale as claim 18.

Regarding claim 28, this claim is rejected under the same rationale as claim 19.

Regarding claim 31, this claim is rejected under the same rationale as claim 23.

Regarding claim 32, this claim is rejected under the same rationale as claim 16.

6. Claims 20-21 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aida (JP 59-126967) in view of Ohara et al. (US 6,529,618) and further in view of Johnson et al. (US 2004/0164939).

Regarding claim 20, Aida and Ohara et al. disclose a method according to claim 16.

Aida and Ohara et al. fail to teach that that the method further comprises showing the displayed image so that defective pixels are not located in a region of interest.

Johnson et al. disclose a method comprising showing a displayed image so that defective pixels are not located in a region of interest (Paragraph [0027] explains that if only part of the image is active that the active part avoids the weak diode, i.e. the image is shifted out of the region where the defect is.).

Therefore, it would have been obvious to “one of ordinary skill” in the art at the time the invention was made to show the displayed image so that the defective pixels would not be located in a region of interest as taught by Johnson et al. with the method taught by the combination of Aida and Ohara et al. in order to allow for the proper viewing of the image without any defects in the image being viewable.

Regarding claim 21, Aida and Ohara et al. disclose a method according to claim 16.

Aida and Ohara et al. fail to teach that that the method further comprises shifting the displayed image so that a defective pixel is located in a flat image area.

Johnson et al. disclose a method comprising shifting a displayed image so that a defective pixel is located in a flat image area (Paragraph [0027] explains that if only part of the image is active that the active part avoids the weak diode, i.e. the image is shifted out of the region where the defect is, and since the display is flat, this will be a flat image area.).

Therefore, it would have been obvious to “one of ordinary skill” in the art at the time the invention was made to shift the displayed image so that the defective pixels would be located in a flat image area as taught by Johnson et al. with the method taught by the combination of Aida and Ohara et al. in order to allow for the proper viewing of the image without any defects in the image being viewable.

Regarding claim 29, this claim is rejected under the same rationale as claim 20.

Regarding claim 30, this claim is rejected under the same rationale as claim 21.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN G. SHERMAN whose telephone number is (571)272-2941. The examiner can normally be reached on M-F, 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen G Sherman/
Examiner, Art Unit 2629

/Amr Awad/
Supervisory Patent Examiner, Art Unit 2629

30 April 2009